



ENVIRONMENTAL MANAGEMENT PROGRAM REFUSE DISPOSAL DIVISION



Greens Processing FY04

Process Map Number(s): GP-1.0

Background / Purpose: There are two tub-grinders and a trommel screen operated as part of the compost and mulching operation. The Air Pollution Control District (APCD) monitors this stationary equipment and their emissions as part of the overall APCD operating permit. This EMP is designed to maximize fuel conservation efforts and concurrently reduce emissions while increasing efficiency of the equipment operation.

Objective: Emissions Reductions

Related Significant Aspects: Exhaust Emissions (Stationary Equipment).

Target: 40% reduction in particulate matter in the E6000 and Diamond Z tub grinders. Continue to review and amend where necessary operating procedures and maintenance activity to obtain optimum fuel efficiency.

Target Completion Date(s): June 30, 2004

Action Plan: Purchase fuel additive from ETHOS as an interim PM10 reduction program for the two tub grinders. Develop and implement fuel additive cycle into the tub grinder fuel schedules. Investigate the modification requirements to run all equipment on low-sulfur diesel. Determine the resale value of Diamond Z tub grinder as well as replacement cost of a new electric tub grinder. Enforce SOPs for: equipment warm-up times (20 minutes), periodic radiator "blow out", shut down and restart procedures. Continue to investigate new technology application for existing stationary equipment. Monitor APCD Rules announcements.

Responsible Person(s): Landfill Superintendent, Senior Mechanical Engineer, Disposal Site Supervisor (Greens), Greens Staff

Resources Required: Tailgate sessions, supervisory guidance and monitoring, written SOPs, contractor support.

Environmental Performance Indicator(s): Exhaust emissions reductions will be based on visible PM-10 reductions as read at the exhaust pipe.

Comments (including other expected benefits or cost savings): Diesel fuel emissions reductions, equipment life extended through cooler running engines.

Baseline Data: See ECOS data set established in FY03.

Approved by: Gary Gobel
Mark zu Hone

Landfill Superintendent
Environmental Management Representative

Environmental Performance Indicator (EPI) Schedule						
Step	Action Items	Responsibilities	Role	Schedule	Resources Required	Date Complete
1	Procure ETHOS fuel product and implement fuel additive program	Service Writer Field Ops Program Manager	Lead Support	9/1/03	Training, Product	N/A
2	Investigate Diamond Z resale value and replacement	Field Ops Program Manager	Lead	8/1/03	-	1/20/04
3	Monitor and comply with SOPs	D.S.S. Equip Operators	Lead Support	daily daily	-	N/A
4	Notify Field Ops Program Manager of latest APCD Rules regarding stationary equipment, alternative fuels etc.	Sr. Mech. Engineer	Lead	upon receipt	APCD Rules	N/A
5	Notify EMR of technology updates / target alternatives	Sr. Mech. Engineer Field Ops Program Manager	Lead Support	upon receipt	Technology updates / alternatives	N/A

D.S.S. = Disposal Site Supervisors

Comments (report performance/milestones):

(FY03) We have investigated at least two options to reduce opacity (visible pollutants) as well as other pollutants from our stationary machinery staged at the greens processing facility. We have authorized ETHOS, a company that offers a vegetable based fuel additive, to test its product on the E6000 tub grinder and Trommel. A base line was developed from the first visit . The "conditioned" fuel is fed to the engines by way of the fuel tank. Preliminary results, after 2 weeks of operations showed a reduction of opacity in the E6000 of 38% and 100% reduction in the Trommell.

Follow on conversations with the supplier indicated that they could not provide the customer service and support required to proceed with this program. It is not the intent of an EMP to impact operations or performance in a negative manner and therefore alternative technologies will be investigated.

The APCD has a grant program that would pay the difference between upgrading an old engine verses replacing it with a cleaner more efficient engine. We investigated this program and determined that the difference in cost was negligible, approximately \$1,000, and that we would not be considered for the limited grant money due to the minimal amount of time the old tub grinder operates on a weekly basis. However, due to the limited difference in cost, it will pay to upgrade to a new Tier II engine. At this time it does not make sense to pursue the electric motor version as the greens area may be moved to accommodate landfilling on site if and when the height restriction is modified.